~~WINTER~~ '98
Feb

Peg's House

Album

SHAKE WELL
ARNOLD
SUNBIRD

STOP & SHOP
LIGHT
Egg Nog
GRADE A
Whipping Cream

WINDOW

T.S. ELIOT
THE COMPLETE POEMS AND PLAYS
Foliage
Success with House Plants
Success with House Plants
GARDEN BIRDS
An Illustrated History of FRANCE
LIFE WITH HAZEL
Foliage House Plants
Flowering House Plants
FRESH FLOWERS

Parfums
Fleurs
CHANEL

HAPPY
BIRTHDAY

BAMBI
Snow White
THE COMPANION
SNET
TDK
BASF
THE KAMA SUTRA
Pearl S. Buck
Anderson

BAMBI
Snow White
Pearl S. Buck
Anderson

1955 Topps Baseball Cards

The Thousand Doors
Rothberg
The Other Man's Shoes
THE HEIRS OF STALIN
Abraham Rothberg
THE STALKING HORSE
SATURN RIVER PRESS
HISTOIRE VECUE DE LA SECONDE GUERRE MONDIALE
1996 Buying Guide
1995 Buying Guide
1994 BUYING GUIDE
1993 BUYING GUIDE
1992 BUYING GUIDE ISSUE
1991 BUYING GUIDE ISSUE
1990 BUYING GUIDE ISSUE
1989 BUYING GUIDE ISSUE
1988 BUYING GUIDE ISSUE
1987 BUYING GUIDE ISSUE
SOUTH DAKOTA REVIEW
SPRING 1987
SEABORNE PRESS
MAXINE STEINMAN
LIGHTS OF CHILDHOOD
ABRAHAM ROTHBERG
THE SONG OF DAVID FREE
SOUTHWEST REVIEW
ABRAHAM ROTHBERG
THE SWORD OF THE GOLEM
THE GREAT WALTZ
ALEKSANDR SOLZHENITSYN
THE MAJOR NOVELS
THE ARBOR HOUSE TREASURY
OF NOBEL PRIZE WINNERS

THE TWO O
Flashl
YOU CAN
SLIPP

THE JOYS OF ADOBE
LEO NOTTEN
1996 BUYING GUIDE
BUYING GUIDE 1997
INFORMATION U.S.A.
THE GARDENER'S HOME COMPANION
NYNEX
SNET
WHITE PAGES

Business Day

The New York Times

L+ D1

WEDNESDAY, JULY 3, 1991

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BUSINESS Digest

WEDNESDAY, JULY 3, 1991

DOW	DOLLAR	OIL	BONDS
30 Industrials	vs. Japanese Yen	Nymex Spot	30-Year Treasuries
2,972.72 +14.31	138.75 Yen +0.33 Yen	$20.82 +$0.05	8.43% Unchanged

The Economy

Orders to U.S. factories surged 2.9 percent in May, the biggest rise in more than a year, the Commerce Department said. The report seemed to extinguish any hopes that the Fed would cut interest rates again to spur the economy. [Page D1.] Consumers' faith in the present and future health of the economy jumped sharply in June, a survey on consumer sentiment showed. [D2.]

Telephone company officials and Federal investigators are befuddled by a string of nearly identical telephone breakdowns around the country. [A1.]

Gold-oriented mutual funds greatly outpaced the stock market from April to June, making them one of the few bright spots among mutual funds investing primarily in common stocks. [D1.]

For stock managers the challenge of the second quarter turned out to be holding on to the gains of the first quarter. [D2.]

Foreigners invested much less in the U.S. last year than in previous years, according to Commerce Department figures. [D3.]

Companies

G.M. and a United Automobile Workers union chapter have tentatively agreed to begin near-nonstop assembly operations at G.M.'s Lordstown, Ohio, plant starting next summer. The step would enable G.M. to effectively produce as many cars at one plant as the company can now assemble in two. [D1.]

Apple Computer and I.B.M. are expected as early as today to announce the formation of a strategic alliance. [D1.]

Miller Brewing has stopped debating whether its light beer tastes great or is less filling. A new advertising blitz asserts: "It's great and that's that." [D1.]

Shell Oil has begun cutbacks that could reduce its work force by as many as 4,000, or 13 percent. [D4.]

Industry experts expressed surprise about A.T.&T.'s announcement stating that it will be allowed to use a favorable accounting method for its merger with NCR. [D17.]

International

Oil-producing and consuming countries agreed to continue "a dialogue" that the U.S. has steadfastly opposed. [D4.]

Markets

After Monday's big run-up, stock prices turned mixed. The Dow

For Shakespeare, Just Log On

Large PC Libraries Are Being Developed

By JOHN MARKOFF

The development of a nationwide data network will allow personal computer users to tap sources as large as the Library of Congress or receive their own personalized electronic newspapers.

Several innovations, taken together, have already demonstrated that searching vast computer data bases can be easier than consulting a card catalogue, and not nearly as difficult or expensive as computer searches are today. Computer users might read some Dickens more readily than they could check out David Copperfield from the local library.

Those in the industry say that users with little computer skills will soon be able to search through several terabytes of information, or several trillion characters of text, in seconds. The Library of Congress, with 80 million items, contains an estimated 25 terabytes of information.

Already, an experimental computer library has linked 130 universities to 40 sources of information, ranging from National Institutes of Health data to corporate documents and Shakespeare's plays. New software allows users to browse or zero in on particular information.

As methods of retrieving information are standardized and perfected, industry executives and computer scientists say, thousands of new services, ranging from electronic newspapers to the computer equivalent of free public libraries, will blossom. "Everyone is realizing how important it is to get into the mass market for information," said Thomas Koulopoulos, president of Delphi Consulting Group, a Boston market research firm.

Such ready access to huge amounts of computerized information has been the dream of many in the industry. But a lack of computing power, effective software and high-speed digital networks has stalled progress until recently.

If many of the technical problems are being solved, major business and political disputes remain. The researchers acknowledge that they must resolve several questions of privacy and pricing before they can put the new methods to commercial use.

Many sources of information, like government documents, might be available free, but other services, including electronic newspapers, will be available only to those who pay. The industry has yet to settle on ways to protect and charge for intellectual property in a computer network where information can be copied instantly. But to encourage progress, the Thinking Machines Corporation, a Cambridge, Mass., supercomputer manufacturer, has made its software available at no charge.

Some industry enthusiasts say the new technology will transform the

Continued on Page D5

Brewster Kahle was the leader of the development team at the Thinking Machines Corporation for a nationwide computerized library system. His team's software links a CM2A Connection Machine, left, with a personal computer or work station like the Apple Macintosh II at right. Using high-speed data highways, the two machines can function together although they may be thousands of miles apart.

Factory Orders Up Sharp 2.9%

May Gain Is Strong Evidence of a Climb Out of the Recession

By ROBERT D. HERSHEY Jr.

WASHINGTON, July 2 — In a compelling report of economic rebound, new orders to American factories surged 2.9 percent in May, the biggest increase at more than a year, the Commerce Department reported today.

It was also the second straight substantial rise after five months in which factory orders declined. The April gain, moreover, was revised upward to 2.1 percent from the 1.8 percent originally reported.

Today's report seemed to extinguish any remaining hopes that the Federal Reserve would find it necessary to cut interest rates again to spur the economy, which is widely believed to be climbing out of the recession that began a year ago. The central bank's Open Market Committee began a two-day meeting today to set monetary targets for the balance of the year.

"I think we're in a classic recovery environment now," said Edward Yardeni, an economist at C.J. Lawrence Inc., a New York securities firm. He noted that not only have new orders turned up — a precursor indicator — but that shipments of factory goods have now advanced for two straight months.

Consumer Confidence Up

In another report, the University of Michigan said its widely followed consumer survey showed a sharp jump in confidence in June. [Page D2.]

The report on factory orders covered the entire range of factory goods — $1.86 trillion of durables, which have designed to last a minimum of three years, and $317.8 billion of nondurables, or consumer goods and orders. A preliminary report on orders

L D5

BUSINESS TECHNOLOGY

For Shakespeare, Just Log On

Continued From First Business Page

It will soon be possible to search through millions of items in seconds.

computerized information is with Marshall Kapor, the founder of the Lotus Development Corporation, pioneer in the growth of a new industry ...ectures as the personal computer ...ftware business. Some companies, like Dow Jones & Company, that already ...ovide computerized information ...ver telephone lines have taken part ...n developing the new computer ...logy.

The Search Is Simplified

...ast year, Thinking Machines enlisted the support of Dow Jones, Apple Computer Inc. and the KPMG Peat Marwick accounting and consulting firm to ...sign the computer library, called ...AIS (pronounced ways). The system ...ermits computer users to ...search through a huge volume of information even if it is stored ...n several distant locations.

The system lets users conduct searches by typing common English ...hrases instead of more complicated computer commands. While current systems like Dialog and Nexis require users to specify precisely the ...nformation they want, the new system can respond to a user's inquiries in ...ntuitive ways. The user chooses ...ist of documents that seem relevant ...om several, and then a "relevance ...eedback" program presents other ...ocuments from the ones select...

This solves the problem of how to get to the information you need, getting not too much and not too little, said Esther Dyson, editor of Release 1.0, a computer industry newsletter.

"This is a sharp contrast to the way services operate today, Ms. Dyson said. A computer user may need to call seven or eight separate data bases depending on the kind of information needed.

The WAIS system lets users of Apple personal computers borrow a network of Thinking Machines computers to search data bases ...ored by Dow Jones, KPMG and several corporations and universities. Users can also read electronic books, ...ften after incorporating electronic bookmarks and summon up a wide variety of documents, newspapers and ...agazines.

A 'Corporate Memory'

At Thinking Machines, the WAIS system serves as a "corporate memory," allowing employees to retrieve memos, documents and other internal information. Employees who may not be working together can share expertise.

"If someone did something in Los Angeles and I'm sitting in San Francisco, I may not know about the work," said Robin Palmer, a senior manager at Peat Marwick.

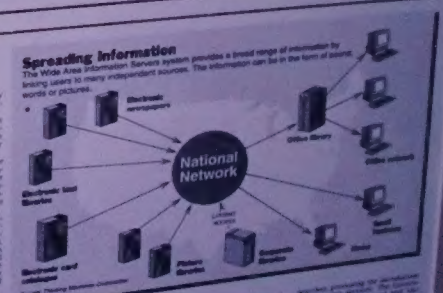
WAIS delivers information over the Internet, a collection of 2,000 high-speed public and private computer networks. This Government-sponsored system of data highways is rapidly being improved and linked to commercial users.

The market for software that allows the rapid retrieval of computerized text is small but growing, according to industry analysts. In 1990, the United States had fewer than 40,000 users, by the year's end, sales were about $120 million. The Delphi Consulting Group expects the market to grow to 250,000 users and $225 million by 1992.

Information retrieval technology is starting to spread from personal computers to small networks and then to entire companies, said Brewster Kahle at Thinking Machines, a researcher who has developed the WAIS system.

The WAIS system is built on a groundwork for retrieving information developed by librarians who created card ...ut to computerize their ...atalogues. The procedure is known in the field as Z39.50 — now has the support of the Library of Congress, Apple, the Microsoft Corporation and Dow Jones and Mead Data Central.

In the future, a special directory of


Spreading Information
The Wide Area Information Servers system provides a broad range of information by linking users to many independent sources. The information can be in the form of sound, words or pictures.
Electronic newspapers
Electronic mail libraries
Electronic card catalogue
Thinking Machines Corporation
National Network
Online library
Online manuals
Mail services
Movie studios
Picture libraries
Museum libraries
Library services

LIGHT
Egg
Nog
Whipping
Cream

IBM

IBM

Encyclopedia Britannica
WHO'S WHO IN AMERICA
World Almanac

24

24

DARWIN • VOYAGE OF THE BEAGLE
GOULD ■ EVER SINCE DARWIN
The Great Religions of the Modern World
ENCYCLOPEDIA of RELIGION
FERM
The Pocket Book of VERSE
CIVILISATION KENNETH CLARK
The Oxford HISTORY OF THE AMERICAN PEOPLE
Oxford
A HISTORY OF WESTERN PHILOSOPHY
JOHN BROCKMAN

DARWIN • VOYAGE OF THE BEAGLE
GOULD ■ EVER SINCE DARWIN
NORTON
SPEAKING SPANISH
College SPANISH GRAMMAR
COLLEGE NOTES & TEXTS
Spanish Authors
PATTISON
Oxford
University of Chicago spanish dictionary
Chicago
NOUVEAU PETIT LAROUSSE ILLUSTRÉ
PI Nshmmi Harvey C. Gordon
CASSELL'S NEW FRENCH DICTIONARY
SIMPLIFIED FRENCH REVIEW
IN A NUTSHELL
LANGENSCHEIDT'S GERMAN-ENGLISH ENGLISH-GERMAN DICTIONARY
SEE IT AND SAY IT IN GERMAN
SCHULZ-GRIESBACH • Deutsche Sprachlehre für Ausländer
WEBSTER'S NEW WORLD DICTIONARY

FUJI FUJI
HQ HQ
Polaroid
120 120
VHS VHS
Maxell
FUJI
T-120
VHS
Panasonic

Photos
Photos
Photos